

INTERNATIONAL SEARCH REPORT

Ir Application No
PCT/US2004/027593

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C08J9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/52997 A (ORBSEAL LLC ; TAYLOR DONALD (US); PACHL JEFFREY T (US)) 26 November 1998 (1998-11-26) the whole document	1-4, 24, 25, 29-35
X	US 4 540 718 A (SENDA KENICHI ET AL) 10 September 1985 (1985-09-10) the whole document	1-4, 24, 25, 29-35
X	US 4 045 378 A (MAXWELL CLIFFORD J) 30 August 1977 (1977-08-30) the whole document	1-4, 24, 25, 29-35
X	US 4 001 158 A (LINDEMANN MARTIN K) 4 January 1977 (1977-01-04) the whole document	1-4, 24, 25, 29-35
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

25 January 2005

Date of mailing of the international search report

08. 02. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Glomm, B

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 740 353 A (PATRICK F ET AL) 19 June 1973 (1973-06-19) the whole document	1-4, 24, 25, 29-35
P, X	WO 2004/005383 A1 (BASF AKTIENGESELLSCHAFT; MALETZKO, CHRISTIAN; DIETZEN, FRANZ-JOSEF; KE) 15 January 2004 (2004-01-15) the whole document	5-23, 26-28
X	WO 02/18482 A2 (JSP CORPORATION; TAKAHASHI, SEIJI; KOGURE, NAOCHIKA; KITAHAMA, TAKASHI) 7 March 2002 (2002-03-07) the whole document	5-23, 26-28
X	US 6 541 105 B1 (PARK CHUNG P) 1 April 2003 (2003-04-01) the whole document	5-23, 26-28
X	WO 93/15132 A1 (THE DOW CHEMICAL COMPANY) 5 August 1993 (1993-08-05) the whole document	5-23, 26-28
X	EP 0 526 872 A1 (SANWA KAKO COMPANY LIMITED) 10 February 1993 (1993-02-10) the whole document	5-23, 26-28
X	US 5 100 924 A (SENUMA ET AL) 31 March 1992 (1992-03-31) the whole document	5-23, 26-28
X	US 5 132 171 A (YOSHIZAWA ET AL) 21 July 1992 (1992-07-21) the whole document	5-23, 26-28
X	US 4 931 484 A (HOVIS ET AL) 5 June 1990 (1990-06-05) the whole document	5-23, 26-28
X	US 4 877 814 A (ITO ET AL) 31 October 1989 (1989-10-31) the whole document	5-23, 26-28

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application No.
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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
1-35
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 24, 25, 29-35

Aqueous froth.

2. claims: 5-23, 26-28

Open-cell foam.

3. claim: 36

Aqueous dispersion.

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Information on patent family members

International Application No
PCT/JP2004/027593

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9852997	A	26-11-1998	AU 740660 B2	08-11-2001
			AU 7584098 A	11-12-1998
			CA 2290423 A1	26-11-1998
			DE 69808283 D1	31-10-2002
			DE 69808283 T2	31-07-2003
			EP 0983312 A1	08-03-2000
			ES 2184264 T3	01-04-2003
			WO 9852997 A1	26-11-1998
			US 6444713 B1	03-09-2002
			US 2002058721 A1	16-05-2002
			US 2002115737 A1	22-08-2002
US 4540718	A	10-09-1985	JP 60152534 A	10-08-1985
			JP 1756488 C	23-04-1993
			JP 4046977 B	31-07-1992
			JP 59187036 A	24-10-1984
			AU 560618 B2	09-04-1987
			AU 2511484 A	11-10-1984
			CA 1222100 A1	19-05-1987
			DE 3471671 D1	07-07-1988
			EP 0123816 A1	07-11-1984
			ES 8600348 A1	01-01-1986
			US 4617322 A	14-10-1986
US 4045378	A	30-08-1977	NONE	
US 4001158	A	04-01-1977	US 3933691 A	20-01-1976
			CA 1039899 A1	03-10-1978
			DE 2501628 A1	17-07-1975
			FR 2257643 A1	08-08-1975
			GB 1463874 A	09-02-1977
			IT 1026333 B	20-09-1978
			JP 50101691 A	12-08-1975
US 3740353	A	19-06-1973	DE 2321394 A1	07-11-1974
			FR 2227285 A1	22-11-1974
			GB 1422617 A	28-01-1976
WO 2004005383	A1	15-01-2004	DE 10230583 A1	15-01-2004
WO 0218482	A2	07-03-2002	AU 8017701 A	13-03-2002
			JP 2002146080 A	22-05-2002
US 6541105	B1	01-04-2003	AU 765546 B2	25-09-2003
			AU 6152399 A	03-04-2000
			BR 9913960 A	03-07-2001
			CA 2339847 A1	23-03-2000
			EP 1114085 A1	11-07-2001
			HU 0103857 A2	28-01-2002
			JP 2002524636 T	06-08-2002
			NO 20011348 A	16-03-2001
WO 9315132	A1	05-08-1993	AT 177126 T	15-03-1999
			CA 2128007 A1	05-08-1993
			DE 69228564 D1	08-04-1999
			DE 69228564 T2	02-09-1999
			DK 625168 T3	27-09-1999
			EP 0625168 A1	23-11-1994

INTERNATIONAL SEARCH REPORT

Int publication No
PCT/US2004/027593

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9315132	A1		ES	2127807 T3	01-05-1999
			GR	3029787 T3	30-06-1999
			JP	3393341 B2	07-04-2003
			JP	7503269 T	06-04-1995
			MX	9300591 A1	01-09-1993
			NO	942888 A	03-08-1994
			US	5567742 A	22-10-1996
EP 0526872	A1	10-02-1993	JP	3242150 B2	25-12-2001
			JP	5338054 A	21-12-1993
			JP	3225316 B2	05-11-2001
			JP	5038766 A	19-02-1993
			CN	1069691 A , B	10-03-1993
			DE	69211443 D1	18-07-1996
			DE	69211443 T2	28-11-1996
			US	5242634 A	07-09-1993
US 5100924	A	31-03-1992	NONE		
US 5132171	A	21-07-1992	JP	4065443 A	02-03-1992
			DE	4121831 A1	09-01-1992
			FR	2671804 A1	24-07-1992
			GB	2248030 A , B	25-03-1992
US 4931484	A	05-06-1990	CA	2008516 A1	14-12-1990
			DE	69031253 D1	18-09-1997
			DE	69031253 T2	05-02-1998
			EP	0405103 A2	02-01-1991
			US	5059631 A	22-10-1991
			US	5277515 A	11-01-1994
			US	5387050 A	07-02-1995
			US	5098782 A	24-03-1992
US 4877814	A	31-10-1989	JP	62057432 A	13-03-1987
			JP	1893103 C	26-12-1994
			JP	5011139 B	12-02-1993
			JP	62064530 A	23-03-1987
			CN	86106823 A , B	20-05-1987
			EP	0214858 A2	18-03-1987